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20. ABSTRACT (Continue on reverse side if necessary and identify by block number)
Reviews briefly the historical development of assessment centers. Describes the dimensions and techniques generally employed in assessment for selection or development. Compares Army officer evaluation system with assessment center techniques. Describes briefly the US Army War College self-assessment program and the potential use of assessment center techniques. Concludes that the potential for use Army-wide and at the US Army War College is great.

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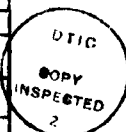
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ASSESSMENT--AN OPPORTUNITY

by

LTC William W. Witt

Of all the many civilian management programs and
initiatives with which the Army has recently been flirting,
potentially the most useful, assessment technology, has been
largely ignored. Assessment for development and selection
offers the Army an opportunity to revitalize its personnel
management system--an opportunity to align expertise with
assignment, to recognize ability with reward, to provide those
striving to improve themselves with the means to do so and to
develop credibility in the way we promote, eliminate, retain,
select and assign our soldiers.

Assessment Technology

Assessment is a method of psychological evaluation of individuals that involves multiple testing and observation procedures. The assessors formulate psychodynamic descriptions which permit prediction of the participants' behavior and performance in certain roles and situations.[1] The essence of the assessment center method is that the individuals to be assessed are brought together in groups of about ten or twelve, then studied by trained observers who use a variety of tests and procedures. The exercise lasts typically from one day to a week.[2]

The first documented use of assessment procedures is attributed to the German Army, which used the technique to select officers during World War I. Later, it was used by the British War Office Selection Board, and following World War II, the British Civil Service Selection Board used it to select

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[1]Donald W. MacKinnon, An Overview of Assessment Centers (Technical Report Number 1) (Greensboro, N.C.: Center for Creative Leadership, 1975).

[2]Donald W. MacKinnon, Designing An Assessment Center for Creative Leaders in the 1980s (Greensboro, N.C.: Center for Creative Leadership, 1980).

candidates for Civil Service positions. That program is still in use.[3]

Probably the most innovative use of the assessment center method during World War II was by the US Army's Office of Strategic Services (OSS). Station S was set up to evaluate the qualifications of candidates to serve overseas in irregular warfare. Its methods and procedures owed much to the earlier efforts of German military psychologists during World War I. The OSS differed from earlier methods in (1) an attempt to describe the whole person, (2) the link between personality and its potentials for operating effectively in demanding roles and situations and (3) a serious attempt to test the validity of the predictions concerning the future performance of those assessed.[4] In 1948, the final report by the OSS, Assessment of Men, was published. It described the program in detail and documented the methodology, procedures and results of that operation and became the basis of assessment technology in the United States.

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[3]W.C. Byham and C. Wettengel, "An Introduction and Overview," Reprint from Public Personnel Management, Sep-Oct, 1974.

[4]MacKinnon, An Overview of Assessment Centers, op. cit., p. 2.

The first assessment center in American industry was established for research purposes in 1957 at AT&T. The now famous Management Progress Study looked at a group of beginning managers in AT&T and followed their development over time in a major longitudinal research effort. In 1958, Bell Telephone established the first assessment center program for operational use. There are now over 2000 assessment centers in American industry including Standard Oil, IBM, Sears, GE and J.C. Penney.

The Army assessment effort lay dead in the water after the termination of the OSS program. In fact, for years the OSS legacy Assessment of Men was used extensively by industry but not at all by the organization that developed it, the Army. Then in November, 1971, eleven battalion commanders were assessed by the Center for Creative Leadership (CCL) in Greensboro, NC. That was followed by an assessment of twelve Brigadier General designees in August, 1972. These were one-time pilot studies with no subsequent continuous follow on efforts. In 1974, the Army Research Institute (ARI) initiated a major research program into the validity of assessment center technology using infantry course candidates at Fort Benning. Assessment is currently being used by the Army for selection for ROTC and for recruiters.

Methods and Procedures

Assessment centers are not intended for producing simple recommendations; assign, don't assign; promote, don't promote. They are designed to obtain a picture of the person as a whole, to permit conditional statements (the candidate under a given situation is likely to behave in a certain way). To change the situation is to change behavior, and, therefore, the environment in which the participant will operate is critical. The physical, interpersonal and organization context of the candidate's job environment should be determined beforehand. The theoretical basis of assessment is that observed behavior is the result of the interaction of person and environment. For this reason, assessment centers seek not only to get a full psychological picture through psychometric instruments and personal observations, but also to simulate as close as possible the situation in which the participant will work.

The development of an assessment program requires three initial tasks: (1) to determine what personality traits and patterns of behavior are job relevant, (2) to decide which traits and behaviors can be observed or measured by psychometric tests, and (3) to select those procedures that will yield the most valid observational data, test scores and profiles.

Following is a representative list of some of the dimensions of trait and behavior, all of which have been rated in assessment centers:[5]

1. Effective Intelligence
2. Organization and Planning
3. Decision Making
4. Practical Judgment
5. Adaptive Flexibility
6. Listening Skills
7. Oral Communication Skills
8. Written Communication Skills
9. Leadership
10. Personal Courage
11. Achievement Motivation
12. Resistence to Stress

Most of these dimensions depend primarily on observed behavior in situations contrived to simulate job environment. Examples of these simulations are:

In-Basket Exercise--includes interaction with superiors, subordinates and peers. Must deal with

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[5]MacKinnon, Designing an Assessment Center, op. cit., pp. 8-10.

letters, memos, policies, etc. This exercise may be
followed by an interview.

Leaderless Group Discussion--may be cooperative in
which group recommendations are sought on a series of
problems--or a competitive exercise in which each
member of a group tries to "sell" his position.

Writing and Speaking Exercises--includes the
development of a written response to a narrative
description of a policy, event or situation, followed
by a formal oral presentation on that response.

In order to form a picture of the whole, behavioral
observations of candidates performing the tasks just mentioned
must be supplemented with psychometric data which measures such
dimensions as mental ability, interests, values and personality.
These tests must be properly developed and standardized to yield
measurements relevant to the job situation. They can provide
insights into motivations and attitudes, fleshing out the
candidate picture. Some examples of those found useful have
been:[6]

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[6]Ibid., pp. 12-18.

The Adjective Check List--can be developed to measure
either the real self or the ideal self, each of which
gives self-perception insights.

California Psychological Inventory--emphasizes the
positive and favorable aspects of personality and
measures social roles, character, achievement
potential and personal orientation and attitudes
toward life.

Study of Values--measures the relative strength of
values such as truth, utility, aesthetic, social,
political and religious.

Strong-Campbell Interest Inventory--measures the
similarity of a person's expressed interests with the
known interests of individuals in a given job
environment.

Myers-Briggs Type Indicator--indicates to which of 16
personality types the candidate belongs measuring
perception vs judging; sensing vs intuition; thinking
vs feeling; and extraversion vs introversion.

Managerial Q-Sort Deck--used to obtain a picture of
how the candidate sees himself as a leader/manager
based on descriptions of traits and behaviors.

Leadership Decision Styles Survey--presents leadership problems in a variety of settings in which the. participants must select a method or style of decision making.

Kirton Adaption-Innovation Inventory--reveals stylistic differences in the way problems are designed and solved and indicates whether the participants tend to be more adaptive or more innovative.

The data developed by these psychometric instruments is then integrated with the results from the simulation to form a rather complete behavioral and psychological picture of the candidate. Of course, the accuracy of that picture depends on the effectiveness of the assessor-instrument combination. And ultimately, the value of the entire assessment exercise depends, for development purposes, on the quality of the feedback given to the individual, and for selection decisions, on the quality and accuracy of the data furnished to the organization.

None of the tests and inventories mentioned here is timed, and most can be self-administered. Many could be sent to the candidates, completed, and returned prior to assessment.

Validity

It seems plausible that if participants react effectively to simulated tasks, they will perform with similar effectiveness on the job--that when leadership and management styles, observed by a staff of observers, are effective in meeting the demands, pressures and problems of a simulation, those styles will be successful in a job, the environment of which is mimicked in the simulation. This plausibility is the reason why assessment centers have high face validity and widespread acceptance in industry.

But more than face validity is important to an organization contemplating a large commitment of resources to an assessment center. The assessing organization should be able to demonstrate that either a statistical relationship exists between the assessment results and actual performance, or that there is a logical relationship between what the assessment says about behavior and the job requirements. The validity of assessment centers has been extensively researched--by AT&T, IBM, Standard Oil of Ohio, Sears, General Electric and others--who found that assessment centers are remarkably effective in identifying management and leadership potential. One AT&T study involved 5943 men who were placed in four rating categories ranging from "more than acceptable" to "not

acceptable," and then posed the question: "What percentage of assessees, by category, met the requirement of two or more promotions following assessment?" The results:

- More than acceptable   41%

- Acceptable   22%

- Questionable   12%

- Not acceptable   4%

The overall correlation between assessment rating and progress was .44 (p .001).[7] Further, review of 22 published validity studies showed a median correlation of .37. In industrial applications, the median correlation with job performance was .33 and with promotion, .40.[8] Validity is not a function of the testing instrument being used. It is an outcome derived from the assessor's skill and insight in interpreting what is inherent in the test instruments.

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[7]Donald W. MacKinnon, "An Overview of Assessment Centers," op. cit., p. 18.

[8]W.C. Byham and C. Wettengel, An Introduction and Overview, op. cit., pp. 357-358.

Reliability

In order for assessment centers to be reliable, there must be confidence that an individual would receive the same rating if he or she went through two different assessment centers. Research on this aspect of assessment technology has shown conclusively that such reliability exists. In 1976 Byham documented two studies that investigated reliability. In one, five groups of assessors evaluated a candidate from a video tape. He was rated on 19 dimensions, and across the five groups of assessors, the ratings were very similar. In the second Byham study, ten candidates were ranked by two teams of assessors with a resultant correlation of .86.

Papp, Goldberg & Weisen documented an interrater reliability study in which 13 assessors observed an interview simulation and then independently completed ratings on six dimensions. Interrater reliability correlation was .93.

In 1973 Moses reported reliability for an AT&T study in which 85 individuals were assessed in two separate programs, one month apart, using different assessors and different exercises.

Yet they came up with the very high correlation of .73 between the two independent assessments.[9]

The findings of validity and reliability research studies lead to the conclusion that assessment centers can be remarkably effective in identifying managerial potential--just precisely how effective has yet to be determined.

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[9]Assessment Center Research Group, What Do We Know About Assessment Centers (Pittsburg: Development Dimensions International, June, 1980).

Assessment for Development vs Selection

In describing the concept of military "genius," Clausewitz wrote that, "What we must do is survey all those gifts of mind and temperament that in combination bear on military activity."[10] Do we in the Army conduct such a survey? If so, how--and how well?

The vehicle for collecting such data is the Officer Evaluation System (OES). According to AR 623-105, "The OES identifies officers who are best qualified for promotion and assignment to positions of higher responsibility. It also identifies officers who should be kept on active duty, those who should be retained in grade, and those who should be eliminated."[11]

The OES system depends upon three instruments for evaluation:

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[10]Carl Von Clausewitz, On War (Princeton: Princeton University Press, 1976), p. 100.

[11]Army Regulation 623-105: The Officer Evaluation System, para. 1-4a.

(1) Duty evaluation as reported on the Officer Evaluation Report (OER).

(2) School evaluations as reported on the academic report.

(3) Department of Army evaluations conducted by selection boards using OERs and academic reports.

Promotion board members typically have about five minutes to evaluate each candidate's individual record, which consists primarily of all the OERs the officer has received over his or her career. Upon that evaluation rests the decision as to whether the officer will be promoted or passed over. Obviously, the quality of such a decision is directly dependent on the validity of the OER system in reporting performance and potential. So the question of how well we accept the Clausewitz challenge to "survey gifts of mind and temperament" can be answered by investigating the discriminatory power of the Officer Evaluation System.

Each year the students at the Army War College study the selection system by simulating an Army promotion board. They are provided 15 actual records (with names deleted) and are given the typical five minutes per record to make the evaluation and subsequent recommendation to promote or not promote. A limited statistical analysis of the numerical scores as reported

on DA Form 67-7 from 1975 to 1980, on a set of those records is
as shown in this table:

FY 1981 Colonel
Promotion Board Results

RECORD NAME	NUMBER REPORTS*	NUMBER MAX REPORTS	REPORT AVERAGE	RESULT
A	8	4	198.9	passed over
B	5	3	199.2	promoted
C	6	5	199.5	promoted
D	5	4	199.8	passed over
E	4	0	197.4	passed over
F	6	6	200.0	passed over
G	7	2	197.6	passed over
H	6	4	199.2	promoted
I	6	5	199.3	passed over
J	6	4	196.8	passed over
K	6	6	200.0	passed over
L	5	5	200.0	passed over
M	8	6	199.5	promoted
N	8	7	199.9	promoted
O	7	4	199.0	passed over
			199.1	

* Since 1975 as reported on DA Form 67-7

Of the ten officers not recommended for promotion, their
combined average was 198.9 out of a possible 200, and for those
officers, 65% of all report scores were a maximum 200. Three of
the officers not recommended for promotion received nothing but
maximum 200 scores. The news that they were not recommended for
promotion must have been somewhat disconcerting to those
officers. AR 623-15's admonishment that, "Reports that

. . . fail to provide a realistic and objective evaluation make it difficult to determine an officer's true potential," must have been retrospectively prophetic.

Does assessment technology offer a potential solution? Assessment for selection has not been and is not popular in the Army. Of the 12 Brigadier General designees who were assessed in the CCL exercise, only one acknowledged the possible utility of using assessment center data in selection of personnel, and one other recommended the inclusion of such data in personnel records for selection decisions. Most of the others made strong recommendations against its formal use in the OES.

But, as indicated earlier, assessment data has been proven to be a valid and reliable predictor of future success. To preclude its use is to deny the Army's personnel system a valuable tool for improving its performance.

The Center for Creative Leadership addressed the question of assessment data for promotional decisions.[12]

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[12]D.S. Holmes, <u>A Report on an Evaluation of Twelve Brigadier General Designees</u> (Greensboro, N.C.: Center for Creative Leadership, 1972).

Do we believe that promotional decisions at the Brigadier General level might be improved if psychological assessment results were available to decision-makers? Yes, on several counts. <u>First</u>, psychological assessment looks at a man's <u>current</u> capabilities and potential, and views them with respect to past performances or achievements. In our view, some of the BG designees currently have more potential and/or capabilities than their past performances and achievements (as reported by them) would suggest, while others have the same or less potential and/or capabilities than their past performances or achievements would suggest. Further, the reasons for discrepancies between past and current potentials and capabilities were often apparent to us. <u>Second</u>, formal psychological assessment probably can provide a sounder basis for categorization into types of leaders or individuals than is usually possible in ordinary organizational settings. <u>Third</u>, psychological assessment can provide an independent source of information that, when combined with other sources of information, may yield a richer understanding of an individual's potential and his developmental needs.

Finally, we believe that a major determinant of an organization's adaptability and future direction of movement is the proportions of different types of individuals who occupy the more influential positions in an organization. Close examination . . . supports this view, especially if it is recognized that the stated beliefs about change in the Army are determined by <u>personality type</u> rather than the opposite. Over the long run, it is the type of personality that an individual has that most thoroughly and directly is predictive of how he will behave in uncertain situations rather than his beliefs about what is proper if the beliefs are externally imposed rather than internally generated.

The payoffs from assessment center data within a selection or promotion subsystem of the personnel system are particularly significant and offer the opportunity for marked increases in

the effectiveness of the overall personnel system. The three components of the Officer Evaluation System; OERs, academic reports, and DA boards, are oriented on goals and standards. Assessment data is oriented on behavior and personality. The integration of this information produces synergistic data that provides a much richer information base from which to make personnel decisions.

A Step Forward

For several years, the curriculum at the Army War College has included a series of self-assessment exercises designed to permit the student to evaluate himself on various professional and personal dimensions. Several of the psychometric instruments mentioned earlier are used in this exercise. These included the Myers-Briggs Type Indicator and Values Surveys. Other instruments used are a Health Self-Appraisal Questionnaire (computer analyzed and scored), FIRO-B, and a Knowledge, Skills and Ability inventory.

This self-assessment exercise, conducted during the first two weeks of the War College course, is designed to provide the student with an objective, scientific self-evaluation. The focus of the self-assessment effort is on heightened awareness of personal values, strengths and leadership style. Each student is expected to use the information from this program to overcome deficient areas, build on his/her strengths and develop a planned approach to personal development and the War College curriculum for the coming year.[13]

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[13] Department of Command and Management, Self-Assessment and Executive Skills Program (Carlisle Barracks, PA: US Army War College, 1981).

Army War College expanded plans for the 82-83 academic year include an assessment center exercise in which students will undergo a series of assessment simulations and psychometric exercises. This is an important step forward toward capitalizing on the opportunity afforded by assessment technology. But it is not the giant step needed. The new program, like its predecessor, is oriented on self-development, and none of the data generated by the exercise will be captured by the personnel system for use in selection.

Perhaps as time passes and assessment technology becomes more and more familiar with concomitant credibility, the decision will be made to use the results for selection. In the meantime, the new Army War College assessment program offers Army War College students the opportunity to significantly increase their self-awareness of intrapersonal and interpersonal characteristics, values and leadership styles, as well as increasing competence in executive skills.

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